

What is claimed is:

1. A method of fabricating a silicon on insulator substrate for use in a semiconductor structure, the method comprising:
 - forming a plurality of trenches on a substrate;
 - forming an insulation layer on the trenches;
 - removing a portion of the insulation layer formed on the trenches to partially expose the substrate; and
 - forming a silicon on insulator film in the substrate via the exposed portions of the substrate.
2. A method of fabricating a silicon on insulator substrate for use in a semiconductor structure, the method comprising:
 - forming a plurality of trenches on a substrate, each of the trenches having an inner surface divided into a peripheral surface and a bottom region;
 - forming an insulation layer on the inner surface of each of the trenches and top of the substrate;
 - removing a portion of the insulation layer formed on the bottom region of each of the trenches to partially expose the substrate, wherein a portion of the insulation layer formed on the peripheral surfaces of each of the trenches remains;
 - forming a silicon on insulator film in the substrate via the exposed portions of the substrate; and
 - filling the trenches with trench filling material to form trench insulation films.
3. A method as defined by claim 2, wherein the silicon on insulator film forming includes performing an anodization on the substrate through the bottom

regions of the trenches to form a porous silicon film therein, and the porous silicon film is changed into a silicon oxide film by an oxidation reaction.

4. A method as defined by claim 2, wherein the silicon on insulator film forming is performed by an oxidation process.

5. A method as defined by claim 4, wherein the portion of the insulation layer formed on the peripheral surface of each of the trenches serves to a protection film of protecting an active region of the substrate during the oxidation process.